

[illegible]

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16. An antagonist which inhibits the activity or expression of the polypeptide of claim 14.

17. A method for the treatment of an individual in need of Histidine Kinase polypeptide comprising: administering to the individual a therapeutically effective amount of the polypeptide of claim 14.

18. A method for the treatment of an individual having need to inhibit Histidine Kinase polypeptide comprising: administering to the individual a therapeutically effective amount of the antagonist of Claim 14.

19. A process for diagnosing a disease related to expression or activity of the polypeptide of claim 14 in an individual comprising:

(a) determining a nucleic acid sequence encoding said polypeptide, and/or

(b) analyzing for the presence or amount of said polypeptide in a sample derived from the individual.

20. A method for identifying compounds which interact with and inhibit or activate an activity of the polypeptide of claim 14 comprising:

contacting a composition comprising the polypeptide with the compound to be screened under conditions to permit interaction between the compound and the polypeptide to assess the interaction of a compound, such interaction being associated with a second component capable of providing a detectable signal in response to the interaction of the polypeptide with the compound;

and determining whether the compound interacts with and activates or inhibits an activity of the polypeptide by detecting the presence or absence of a signal generated from the interaction of the compound with the polypeptide.

21. A method for inducing an immunological response in a mammal which comprises inoculating the mammal with Histidine Kinase polypeptide of claim 14, or a fragment or variant thereof, adequate to produce antibody and/or T cell immune response to protect said animal from disease.

22. A method of inducing immunological response in a mammal which comprises delivering a nucleic acid vector to direct expression of Histidine Kinase polypeptide of claim 14, or fragment or a variant thereof, for expressing said Histidine Kinase polypeptide, or a fragment or a variant thereof *in vivo* in order to induce an immunological response to produce antibody and/ or T cell immune response to protect said animal from disease.

23. An isolated polynucleotide comprising a polynucleotide having at least a 70% identity to a polynucleotide encoding a polypeptide comprising the amino acid sequence of SEQ ID NO:4.

24. An isolated polynucleotide comprising a polynucleotide having at least a 70% identity to the polynucleotide sequence of SEQ ID NO:3.

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